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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PEREZ, ANGELICA	

ART UNIT	PAPER NUMBER
2684	3

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/035,354	SHAH ET AL.	
	Examiner	Art Unit	
	Angelica M. Perez	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11, 14-20 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Krishnamurthi (Krishnamurthi, Rajeev; US Patent No.: 6,157,828 A).

Regarding claims 1, 5, 9 and 18, Krishnamurthi teaches of a method (abstract), a mobile switching center (figure 1, item 10; column 3, lines 49-53), a base station serving a mobile station (figure 1, items 12 and 14) for use in a wireless communications system (column 3, lines 46-48; e.g., "cellular system") comprising: a controller which (column 3, lines 56-58; where the controller perform the "controlling switching functions"), in response to receiving a clear request triggered by a mobile station terminating call connections while a call involving the mobile station is holding following a call waiting notification to the mobile station (column 4, lines 64-67, column 5, line 1-3 and 48-67 and column 6, lines 1-4), transmits a message to a base station serving the mobile station to maintain resource allocations designated for the mobile station and alert the mobile station of the holding call (column 5, lines 51-61).

Regarding claims 2, 6, 10 and 19, Krishnamurthi teaches all the limitations according to claims 1, 5, 9 and 18. In addition, Krishnamurthi teaches where the message is a clear reject message defined to prompt maintenance of the resource

allocations designated for the mobile station and transmission of an alert to the mobile station of the holding call (column 5, lines 51-67 and column 6, lines 1-10; where the prevention of the release of the traffic channel is triggered by a clear reject message).

Regarding claims 3, 7,11 and 20, Krishnamurthi teaches all the limitations according to claims 1, 5,9 and 18. Krishnamurthi further teaches where the message is a clear command message with a cause value defined to prompt maintenance of the resource allocations designated for the mobile station and transmission of an alert to the mobile station of the holding call (column 5, lines 41-61; e.g., "release message" corresponding to a "clear command message").

Regarding claims 4 and 8, Krishnamurthi teaches all the limitations according to claims 1 and 5. In addition, Krishnamurthi teaches where, after transmitting the message, the controller awaits a connect message indicating that the mobile station has initiated connection to the holding call (column 5, lines 58-65; where the MSC waits for the MS response entered by the subscriber).

Regarding claim 14, Krishnamurthi teaches all the limitations according to claim 9. In addition, Krishnamurthi teaches where the base station, upon receiving the message, transmits an alert with information to the mobile station to alert the mobile station of the holding call (column 5, lines 40-44; where the alert is a "ring" tone).

Regarding claim 15 and 22, Krishnamurthi teaches all the limitations according to claims 14 and 18. In addition, Krishnamurthi teaches where the base station, in transmitting the alert with information to the mobile station, causes a ring tone to sound at the mobile station (column 5, lines 40-44; where the alert is a "ring" tone).

Regarding claim 16, Krishnamurthi teaches all the limitations according to claim 14. Krishnamurthi also teaches where the base station, after transmitting the alert with information to the mobile station, awaits an acknowledgment of the alert with information from the mobile station (column 5, lines 61-65; where the subscriber answer, acknowledgement, is sent to the BS).

Regarding claims 17 and 23, Krishnamurthi teaches all the limitations according to claims 14 and 18. Krishnamurthi further teaches where the base station, after transmitting the alert with information to the mobile station, awaits a connect order from the mobile station requesting connection to the holding call and, upon receiving the connect order, transmits a connect message to the mobile switching center (column 5, lines 61-65; where the subscriber answer sent to the BS is subsequently directed to the MSC).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Lekven (Lekven et al., US Patent No.: 5,884,196 A).

Regarding claim 12, Krishnamurthi teaches all the limitations according to claim 9.

Krishnamurthi does not teach where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message.

In related art concerning preserving power of a remote unit, Lekven teaches where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message (column 11, lines 35-40; where 1.5 seconds is a standard time delay for a transmission message).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi's base station serving a terminal call communication with Lekven's 1.5 second default value in order to allow the message to communicate the information before the clear request is executed.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Shishino (Shishino, Shinishi; US Patent No.: 6,108,563 A).

Regarding claim 13, Krishnamurthi teaches all the limitations according to claim 9.

Krishnamurthi does not teach where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call.

In related art concerning a communication control apparatus, Shishino teaches where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call (column 9, lines 50-53; where an allocated time for reconnection is granted before disconnection occurs).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi's base station serving a terminal call communication with Shishino's default value in order to have enough time for a subscriber to react to the warning.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthi in view of Lekven and further in view of Shishino (Shishino, Shinishi; US Patent No.: 6,108,563 A).

Regarding claim 21, Krishnamurthi teaches all the limitations according to claim18.

Krishnamurthi does not teach of starting a timer for the base station having a default value of 1.5 seconds in response to transmitting the clear request; stopping the

timer for the base station in response to receiving the message; starting a timer for the mobile switching center having a default value of 30 seconds in response to transmitting the message; and stopping the timer for the mobile switching center in response to receiving a connect message indicating that the mobile station has initiated connection to the holding call.

Lekven teaches where a timer having a default value of 1.5 seconds is started by the clear request and stopped by the message (column 11, lines 35-40; where 1.5 seconds is a standard time delay for a transmission message).

Shishino further teaches where a timer having a default value of 30 seconds is started by the message and stopped by a connect message indicating that the mobile station has initiated connection to the holding call (column 9, lines 50-53; where an allocated time for reconnection is granted before disconnection occurs).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Krishnamurthi's base station serving a terminal call communication with Lekven's and Shishino's default values in order to allow a determined maximum waiting time for a response.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

Angelica Perez
(Examiner)

NAY MAUNG
SUPERVISORY PATENT EXAMINER
Art Unit 2684

May 12, 2004